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Preface

The Climate Monitoring and Diagnostics Laboratory (CMDL) is located in Boulder, Colorado, with observatories in Barrow, Alaska; Mauna Loa, Hawaii; Cape Matatula, American Samoa; and South Pole, Antarctica. It is one of twelve components within the Office of Oceanic and Atmospheric Research (OAR) of the National Oceanic and Atmospheric Administration (NOAA). CMDL conducts research related to atmospheric constituents that are capable of forcing change in the climate of the earth through modification of the atmospheric radiative environment, for example greenhouse gases and aerosols, and those such as fluorocarbons that may cause depletion of the global ozone layer.

This report is a summary of activities of CMDL for calendar years 1998 and 1999. It is the 25th consecutive report issued by this organization and its Air Resources Laboratory/Geophysical Monitoring for Climatic Change predecessor since formation in 1972. From 1972 through 1993 (numbers 1 through 22), reports were issued annually. For 1994-1995 we began a 2-year reporting cycle, which stems from a need to most efficiently use the time and financial resources of our staff and laboratory and from a general trend towards electronic media. In this respect, CMDL has developed a comprehensive internet home page during the past several years. There you will find information about our major groups and observatories, latest events and press releases, publications, data availability, and personnel. Numerous data graphs and ftp data files are available. The URL address is http://www.cmdl.noaa.gov. Information (program descriptions, accomplishments, publications, plans, data access, etc.) on CMDL parent organizations can best be obtained via the internet. Their URL addresses are OAR: http://www.oar.noaa.gov; NOAA: http://www.noaa.gov.

This report is organized into the following major sections:

- 1. Observatory, Meteorology, and Data Management Operations
- 2. Carbon Cycle
- 3. Aerosols and Radiation
- 4. Ozone and Water Vapor
- 5. Halocarbons and Other Atmospheric Traces Species
- 6. Cooperative Programs

These are followed by a list of CMDL staff publications for 1998-1999.

Inquiries and/or comments are welcomed and should be addressed to:

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Jim Peterson joined the Geophysical Monitoring for Climatic Change (GMCC) Division of the NOAA Air Resources Laboratory in 1977. He became Director of GMCC in 1981 and served in that position until the Division was re-organized into CMDL in 1990. He was the Deputy Director of CMDL until he retired from federal service in January 1999. For the following 2 years he had a Research Scientist Emeritus position with the Cooperative Institute for Research in Environmental Sciences (CIRES).

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